

# Turf Variety Evaluation Trials

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The primary objective of this experiment is to provide sufficiently large and replicated trials in a sod growing environment that will provide the opportunity for evaluating their reaction to various disease problems of interest to the turf industry. Special emphasis is upon "Patch diseases." Because such diseases often develop in irregular patterns of distribution, we have made these plots 10 x 50 feet in size, with three replications of each entry. However, other information is being obtained that should prove useful as well. These plots were seeded on September 16 and 17, 1982, with a Brillion planter. Bluegrass entries were seeded at the approximate rate of 50 pounds per acre, while the tall fescue and perennial ryegrass entries were seeded at twice that rate. Blends were prepared on a weight basis. Soil tests taken at that time were as follows: pH 5.7; phosphorus 170-280 pounds/A; potassium 365-465 pounds/A; soluble salts 48-55; organic matter 12.5%.

A uniform stand was established during the fall of 1982 on the Long Island Sod Farm, and it wintered through quite well. Helminthosporium, density, color and root depth ratings were taken in 1983. The perennial ryegrass entries did not winter through well in 1983-84, and are only now showing some recovery. This will be an important consideration as the 1984 readings of blend responses are examined. The entries are listed in the table below, along with data that have been taken to date in 1984:

Entry	Helminthosporium (May 31)	Color (May 31)	"Patch" (July 13)
1. Palmer perennial ryegrass*			
2. Diplomat perennial ryegrass*			
3. Regal perennial ryegrass*			
4. Elka perennial ryegrass*			
5. Yorktown II perennial ryegrass*			
6. Adelphia (85%) + Yorktown II (15%)*	2.9	(7)	0
7. Vantage (85%) + Regal (15%)*	5.5	(5)	0
8. Ram I (90%) + Jamestown r.f. (5%) + Diplomat (5%)*	5.3	(6)	1.5
9. Ram I (70%) + Jamestown r.f. (15%) + Diplomat (15%)*	3.8	(6)	
10. H-7	2.6	(5)	0
11. I-13	3.3	(5)	0
12. Haga	3.7	(5)	0.3
13. Merit	3.4	(7)	0.2
14. Eclipse	2.5	(7)	0
15. Wabash	7.7	(5)	0
16. Nassau	2.8	(6)	0.8
17. N535	3.1	(7)	0
18. Birka	3.6	(5)	2
19. Midnight	2.6	(10)	0
20. Ram I	6.9	(6)	1.3
21. Sydsport	4.4	(5)	1.3
22. Newport	5.4	(6)	1.7
23. Columbia	3.6	(5.5)	1.5
24. Park	7.9	(5)	0
25. Georgetown	3.1	(6)	1.3
26. Vantage	6.0	(6)	0
27. Adelphia	2.7	(8)	0
28. Glade	3.8	(7)	0
29. Mystic	4.6	(6)	0
30. Baron	3.2	(7)	0.3
31. Merion	2.8	(5)	0
32. Tranpas	4.0	(6)	4
33. Park (29%) + Dawson r.f. (29%) + P. distans (25%) + Pennfine ryegrass (17%)*	6.4		1.0
34. Rebel Tall Fescue	2.2		0
35. Rebel T.F. (80%) + Sydsport (20%)	3.2		0.2
Isd .05	0.4		

\* The Ryegrasses did not survive well in the winter of 1983-84.

All readings are an average of three replications except the Long Island Sod Farm color reading, which was of only the first replication. Rating system for Helminthosporium: 0-3.7 = "acceptable"; 3.7-4.3 = marginally acceptable; 4.4 or greater = disease notice-able, and turf was thinner as the numbers increased. Color rating system: 5 = light color; 6 = moderately light; 7 = moderately green; 8 = moderately dark green; 9 = dark green; 10 = very dark green.

Note: A similar plot has also been established at the William and Lois Kempley Sod Farm. We appreciate the contributions of both the Huggetts and the Kempleys to this project. Special appreciation is also due Mr. Egon Herrmann (Lofts Seeds), who obtained the seed for us, and to members of the Turf Seed Industry who donated the seed.